

Eucalyptus globulus Lyocell process: optimisation and incorporation of reused MMCF

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The production of man-made cellulosic fibers (MMCF) represents a gap in the Portuguese textile and clothing chain value. To fulfil this break, CITEVE (technological Institute providing R&D, technical support and services to companies acting in the textile & clothing business), CeNTI (multi-sectoral R&D institution in the fields of smart and functional materials), CAIMA, from Altri Group (a leading Portuguese eucalyptus pulp producer with high efficiency) and the University of Aveiro (experienced research group in the field of wood chemistry), gathered together into the Bioeconomy at Textile project (be@t) to strengthen the knowledge on the production of high-quality MMCF from *Eucalyptus globulus* dissolving pulp produced locally.

Beyond optimising the pulp and Lyocell fiber production processes, the reuse of MMCF has been evaluated as a way of reducing waste and increasing the sustainability of MMCF production. The effect of the amount of reused fibers on the performance of cellulose dissolution in NMMO was evaluated and correlated with the dope properties.

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